APPENDIX C

DETAILED ANALYSES, METHODS AND DETECTION LIMITS

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Dichlorodifluoromethane	ND	20 µg/Kg
2	Chloromethane	ND	40 µg/Kg
3	Vinyl chloride	ND	20 µg/Kg
4	Chloroethane	ND	20 µg/Kg
5	Bromomethane	ND	20 µg/Kg
6	Trichlorofluoromethane	ND	20 µg/Kg
7	1,1-Dichloroethene	ND	20 µg/Kg
8	Dichloromethane	ND	40 µg/Kg
9	trans-1,2-Dichloroethene	ND	20 µg/Kg
10	1,1-Dichloroethane	ND	20 µg/Kg
11	cis-1,2-Dichloroethene	ND	20 µg/Kg
12	Bromochloromethane	ND	20 µg/Kg
13	Chloroform	ND	20 µg/Kg
14	2,2-Dichloropropane	ND	20 µg/Kg
	1,2-Dichloroethane	ND	20 µg/Kg
	1,1,1-Trichloroethane	ND	20 µg/Kg
17	1,1-Dichloropropene	ND	20 µg/Kg
18	Carbon tetrachloride	ND	20 µg/Kg
19	Benzene	ND	20 µg/Kg
20	Dibromomethane	ND	20 µg/Kg
21	1,2-Dichloropropane	ND	20 µg/Kg
22	Trichloroethene	ND	20 µg/Kg
23	Bromodichloromethane	ND	20 µg/Kg
24	cis-1,3-Dichloropropene	ND	20 µg/Kg
25	trans-1,3-Dichloropropene	ND	20 µg/Kg
26	1,1,2-Trichloroethane	ND	20 µg/Kg
27	Toluene	ND	20 µg/Kg
28	1,3-Dichloropropane	ND	20 µg/Kg
29	Dibromochloromethane	ND	20 µg/Kg
30	1,2-Dibromoethane (EDB)	ND	40 µg/Kg
31	Tetrachloroethene	ND	20 µg/Kg
32	1,1,1,2-Tetrachloroethane	ND	20 µg/Kg
33	Chlorobenzene	ND	20 µg/Kg
34	Ethylbenzene	ND	20 µg/Kg
35	m,p-Xylene	ND	20 µg/Kg

	Compound	Concentration	Reporting Limit
36	Bromoform	ND	20 µg/Kg
37	Styrene	ND	20 µg/Kg
38	o-Xylene	ND	20 µg/Kg
39	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
40	1,2,3-Trichloropropane	ND	40 µg/Kg
41	Isopropylbenzene	ND	20 µg/Kg
42	Bromobenzene	ND	20 µg/Kg
43	n-Propylbenzene	ND	20 µg/Kg
44	4-Chlorotoluene	ND	20 µg/Kg
45	2-Chlorotoluene	ND	20 µg/Kg
46	1,3,5-Trimethylbenzene	ND	20 µg/Kg
47	tert-Butylbenzene	ND	20 µg/Kg
48	1,2,4-Trimethylbenzene	ND	20 µg/Kg
49	sec-Butylbenzene	ND	20 µg/Kg
50	1,3-Dichlorobenzene	ND	20 µg/Kg
51	1,4-Dichlorobenzene	ND	20 µg/Kg
52	4-Isopropyltoluene	ND	20 µg/Kg
53	1,2-Dichlorobenzene	ND	20 µg/Kg
54	n-Butylbenzene	ND	20 µg/Kg
55	1,2-Dibromo-3-chloropropane (DBCP)	ND	60 µg/Kg
56	1,2,4-Trichlorobenzene	ND	40 µg/Kg
57	Naphthalene	ND	40 µg/Kg
58	Hexachlorobutadiene	ND	40 µg/Kg
59	1,2,3-Trichlorobenzene	ND	40 µg/Kg

Semivolatile Organics by GC/MS
EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Phenol	ND	660 µg/Kg
2	2-Chlorophenol	ND	660 µg/Kg
3	Bis(2-chloroethyl)ether	ND	660 µg/Kg
4	1,3-Dichlorobenzene	ND	1,300 µg/Kg
5	1,4-Dichlorobenzene	ND	1,300 µg/Kg
6	1,2-Dichlorobenzene	ND	1,300 µg/Kg
7	Bis(2-chloroisopropyl)ether	ND	660 µg/Kg
8	N-Nitrosodi-n-propylamine	ND	660 µg/Kg
9	Hexachloroethane	ND	1,300 µg/Kg
10	Nitrobenzene	ND	660 µg/Kg
11	Isophorone	ND	660 µg/Kg
12	2-Nitrophenol	ND	660 µg/Kg
13	2,4-Dimethylphenol	ND	660 µg/Kg
14	Bis(2-chloroethoxy)methane	ND	660 µg/Kg
15	2,4-Dichlorophenol	ND	660 µg/Kg
	1,2,4-Trichlorobenzene	ND	660 µg/Kg
17	Naphthalene	ND	660 µg/Kg
18	Hexachlorobutadiene	ND	660 µg/Kg
19	4-Chloro-3-methylphenol	ND	1,300 µg/Kg
20	Hexachlorocyclopentadiene	ND	13,000 µg/Kg
21	2,4,6-Trichlorophenol	ND	660 µg/Kg
22	2-Chloronaphthalene	ND	660 µg/Kg
23	Dimethyl phthalate	ND	660 µg/Kg
24	Acenaphthylene	ND	660 µg/Kg
25	2,6-Dinitrotoluene	ND	660 µg/Kg
26	Acenaphthene	ND	660 µg/Kg
27	2,4-Dinitrophenol	ND	13,000 µg/Kg
28	4-Nitrophenol	ND	3,300 µg/Kg
29	2,4-Dinitrotoluene	ND	660 µg/Kg
30	Diethyl phthalate	ND	660 µg/Kg
31	Fluorene	ND	660 µg/Kg
32	4-Chlorophenyl phenyl ether	ND	660 µg/Kg
33	4,6-Dinitro-2-methylphenol	ND	660 µg/Kg
34	N-Nitrosodiphenylamine	ND	3,300 µg/Kg
35	4-Bromophenyl phenyl ether	ND	660 µg/Kg

	Compound	Concentration	Reporting Limit
36	Hexachlorobenzene	ND	660 µg/Kg
37	Pentachlorophenol	ND	3,300 µg/Kg
38	Phenanthrene	ND	660 µg/Kg
39	Anthracene	ND	660 µg/Kg
40	Di-n-butyl phthalate	ND	3,300 µg/Kg
41	Fluoranthene	ND	660 µg/Kg
42	Pyrene	ND	660 µg/Kg
43	Butyl benzyl phthalate	ND	1,300 µg/Kg
44	Benzo(a)anthracene	ND	660 µg/Kg
45	3,3'-Dichlorobenzidine	ND	1,300 µg/Kg
46	Chrysene	ND	660 µg/Kg
47	Bis(2-ethylhexyl)phthalate	ND	3,300 µg/Kg
48	Di-n-octyl phthalate	ND	1,300 µg/Kg
49	Benzo(b)fluoranthene	ND	660 µg/Kg
50	Benzo(k)fluoranthene	ND	660 µg/Kg
51	Benzo(a)pyrene	ND	660 µg/Kg
52	Indeno(1,2,3-cd)pyrene	ND	660 µg/Kg
53	Dibenz(a,h)anthracene	ND	660 µg/Kg
54	Benzo(g,h,i)perylene	ND	660 µg/Kg

Polychlorinated Biphenyls (PCBs)
EPA Method SW8082

	Compound	Concentration	Reporting Limit
1	Aroclor 1016	ND	33 µg/Kg
2	Aroclor 1221	ND	33 µg/Kg
3	Aroclor 1232	ND	33 µg/Kg
4	Aroclor 1242	ND	33 µg/Kg
5	Aroclor 1248	ND	33 µg/Kg
6	Aroclor 1254	ND	33 µg/Kg
7	Aroclor 1260	ND	33 µg/Kg

ND = Not Detected

Organochlorine Pesticides
EPA Method SW8081A

	Compound	Concentration	Reporting Limit
1	alpha-BHC	ND	1.7 µg/Kg
2	gamma-BHC (Lindane)	ND	1.7 µg/Kg
3	Heptachlor	ND	1.7 µg/Kg
4	Aldrin	ND	1.7 µg/Kg
5	beta-BHC	ND	1.7 µg/Kg
6	delta-BHC	ND	1.7 µg/Kg
7	Heptachlor epoxide	ND	1.7 µg/Kg
8	Endosulfan I	ND	1.7 µg/Kg
9	Chlordane (Technical)	ND	33 µg/Kg
10	4,4'-DDE	ND	3.3 µg/Kg
11	Dieldrin	ND	3.3 µg/Kg
12	Endrin	ND	3.3 µg/Kg
13	4,4'-DDD	ND	3.3 µg/Kg
14	Endosulfan II	ND	3.3 µg/Kg
15	4,4'-DDT	ND	3.3 µg/Kg
16	Endrin aldehyde	ND	6.6 µg/Kg
17	Methoxychlor	ND	17 µg/Kg
18	Endosulfan sulfate	ND	3.3 µg/Kg
19	Endrin ketone	ND	6.6 µg/Kg
20	Toxaphene	ND	170 µg/Kg

ND = Not Detected

Chlorinated Herbicides
EPA Method SW8151A

	Compound	Concentration	Reporting Limit
1	Dalapon	ND	170 µg/Kg
2	3,5-Dichlorobenzoic Acid	ND	33 µg/Kg
3	4-Nitrophenol	ND	170 µg/Kg
4	Dicamba	ND	33 µg/Kg
5	MCPP	ND	6,600 µg/Kg
6	MCPA	ND	6,600 µg/Kg
7	Dichloroprop	ND	170 µg/Kg
8	2,4-D	ND	33 µg/Kg
9	Pentachlorophenol	ND	33 µg/Kg
10	2,4,5-TP (Silvex)	ND	33 µg/Kg
11	2,4,5-T	ND	33 µg/Kg
12	2,4-DB	ND	330 µg/Kg
13	Dinoseb	ND	170 µg/Kg
14	Bentazon	ND	170 µg/Kg
15	DCPA (Dachtal)	ND	170 µg/Kg
16	Pichloram	ND	33 µg/Kg
17	Acifluorfen	ND	170 µg/Kg

ND = Not Detected

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit	
1	Dichlorodifluoromethane	ND	1.0	µg/L
2	Chloromethane	ND	2.0	µg/L
3	Vinyl chloride	ND	1.0	µg/L
4	Chloroethane	ND	1.0	µg/L
5	Bromomethane	ND	1.0	µg/L
6	Trichlorofluoromethane	ND	1.0	µg/L
7	1,1-Dichloroethene	ND	1.0	µg/L
8	Dichloromethane	ND	1.0	µg/L
9	trans-1,2-Dichloroethene	ND	2.0	µg/L
10	1,1-Dichloroethane	ND	1.0	µg/L
11	cis-1,2-Dichloroethene	ND	1.0	µg/L
12	Bromochloromethane	ND	1.0	µg/L
13	Chloroform	ND	1.0	µg/L
14	2,2-Dichloropropane	ND	1.0	µg/L
15	1,2-Dichloroethane	ND	1.0	µg/L
16	1,1,1-Trichloroethane	ND	1.0	µg/L
17	1,1-Dichloropropene	ND	1.0	µg/L
18	Carbon tetrachloride	ND	1.0	µg/L
	Benzene	ND	1.0	µg/L
20	Dibromomethane	ND	1.0	µg/L
21	1,2-Dichloropropane	ND	1.0	µg/L
22	Trichloroethene (TCE)	ND	1.0	µg/L
23	Bromodichloromethane	ND	1.0	µg/L
24	cis-1,3-Dichloropropene	ND	1.0	µg/L
25	trans-1,3-Dichloropropene	ND	1.0	µg/L
26	1,1,2-Trichloroethane	ND	1.0	µg/L
27	Toluene	ND	1.0	µg/L
28	1,3-Dichloropropane	ND	1.0	µg/L
29	Dibromochloromethane	ND	1.0	µg/L
30	1,2-Dibromoethane (EDB)	ND	1.0	µg/L
31	Tetrachloroethene (PCE)	ND	2.0	µg/L
32	1,1,1,2-Tetrachloroethane	ND	1.0	µg/L
33	Chlorobenzene	ND	1.0	µg/L
34	Ethylbenzene	ND	1.0	µg/L
35	m,p-Xylene	ND	1.0	µg/L
36	Bromoform	ND	1.0	µg/L
37	Styrene	ND	1.0	µg/L
38	o-Xylene	ND	1.0	µg/L
39	1,1,2,2-Tetrachloroethane	ND	1.0	µg/L
40	1,2,3-Trichloropropane	ND	2.0	µg/L
41	Isopropylbenzene	ND	1.0	µg/L
42	Bromobenzene	ND	1.0	µg/L
43	n-Propylbenzene	ND	1.0	µg/L
44	4-Chlorotoluene	ND	1.0	µg/L
45	2-Chlorotoluene	ND	1.0	µg/L
46	1,3,5-Trimethylbenzene	ND	1.0	µg/L
47	tert-Butylbenzene	ND	1.0	µg/L
48	1,2,4-Trimethylbenzene	ND	1.0	µg/L
49	sec-Butylbenzene	ND	1.0	µg/L
50	1,3-Dichlorobenzene	ND	1.0	µg/L
51	1,4-Dichlorobenzene	ND	1.0	µg/L
52	4-Isopropyltoluene	ND	1.0	µg/L
53	1,2-Dichlorobenzene	ND	1.0	µg/L
54	n-Butylbenzene	ND	1.0	µg/L
55	1,2-Dibromo-3-chloropropane (DBCP)	ND	3.0	µg/L
56	1,2,4-Trichlorobenzene	ND	2.0	µg/L
57	Naphthalene	ND	2.0	µg/L
58	Hexachlorobutadiene	ND	2.0	µg/L
59	1,2,3-Trichlorobenzene	ND	2.0	µg/L

ND = Not Detected

Semivolatile Organics by GC/MS
EPA Method SW8270C

	Compound	Concentration	Reporting Limit	
1	Phenol	ND	10	µg/L
2	2-Chlorophenol	ND	10	µg/L
3	Bis(2-chloroethyl)ether	ND	10	µg/L
4	1,3-Dichlorobenzene	ND	20	µg/L
5	1,4-Dichlorobenzene	ND	20	µg/L
6	1,2-Dichlorobenzene	ND	20	µg/L
7	Bis(2-chloroisopropyl)ether	ND	10	µg/L
8	N-Nitrosodi-n-propylamine	ND	10	µg/L
9	Hexachloroethane	ND	20	µg/L
10	Nitrobenzene	ND	10	µg/L
11	Isophorone	ND	10	µg/L
12	2-Nitrophenol	ND	10	µg/L
13	2,4-Dimethylphenol	ND	10	µg/L
14	Bis(2-chloroethoxy)methane	ND	10	µg/L
15	2,4-Dichlorophenol	ND	10	µg/L
16	1,2,4-Trichlorobenzene	ND	10	µg/L
17	Naphthalene	ND	10	µg/L
18	Hexachlorobutadiene	ND	10	µg/L
	4-Chloro-3-methylphenol	ND	10	µg/L
	Hexachlorocyclopentadiene	ND	20	µg/L
21	2,4,6-Trichlorophenol	ND	200	µg/L
22	2-Chloronaphthalene	ND	10	µg/L
23	Dimethyl phthalate	ND	10	µg/L
24	Acenaphthylene	ND	10	µg/L
25	2,6-Dinitrotoluene	ND	10	µg/L
26	Acenaphthene	ND	10	µg/L
27	2,4-Dinitrophenol	ND	10	µg/L
28	4-Nitrophenol	ND	200	µg/L
29	2,4-Dinitrotoluene	ND	50	µg/L
30	Diethyl phthalate	ND	10	µg/L
31	Fluorene	ND	10	µg/L
32	4-Chlorophenyl phenyl ether	ND	10	µg/L
33	4,6-Dinitro-2-methylphenol	ND	10	µg/L
34	N-Nitrosodiphenylamine	ND	50	µg/L
35	4-Bromophenyl phenyl ether	ND	10	µg/L
36	Hexachlorobenzene	ND	10	µg/L
37	Pentachlorophenol	ND	50	µg/L
38	Phenanthrene	ND	10	µg/L
39	Anthracene	ND	10	µg/L
40	Di-n-butyl phthalate	ND	50	µg/L
41	Fluoranthene	ND	10	µg/L
42	Pyrene	ND	10	µg/L
43	Butyl benzyl phthalate	ND	20	µg/L
44	Benzo(a)anthracene	ND	10	µg/L
45	3,3'-Dichlorobenzidine	ND	20	µg/L
46	Chrysene	ND	10	µg/L
47	Bis(2-ethylhexyl)phthalate	ND	50	µg/L
48	Di-n-octyl phthalate	ND	20	µg/L
49	Benzo(b)fluoranthene	ND	10	µg/L
50	Benzo(k)fluoranthene	ND	10	µg/L
51	Benzo(a)pyrene	ND	10	µg/L
52	Indeno(1,2,3-cd)pyrene	ND	10	µg/L
53	Dibenz(a,h)anthracene	ND	10	µg/L
54	Benzo(g,h,i)perylene	ND	10	µg/L

ND = Not Detected

Polychlorinated Biphenyls (PCBs)
EPA Method 608/SW8082

	Compound	Concentration	Reporting Limit
1	Aroclor 1016	ND	1.0 µg/L
2	Aroclor 1221	ND	1.0 µg/L
3	Aroclor 1232	ND	1.0 µg/L
4	Aroclor 1242	ND	1.0 µg/L
5	Aroclor 1248	ND	1.0 µg/L
6	Aroclor 1254	ND	1.0 µg/L
7	Aroclor 1260	ND	1.0 µg/L

ND = Not Detected

Chlorinated Herbicides
EPA Method 615/SW8151A

	Compound	Concentration	Reporting Limit
1	Dalapon	ND	5.0 µg/L
2	3,5-Dichlorobenzoic Acid	ND	1.0 µg/L
3	4-Nitrophenol	ND	5.0 µg/L
4	Dicamba	ND	1.0 µg/L
5	MCPP	ND	200 µg/L
6	MCPA	ND	200 µg/L
7	Dichloroprop	ND	5.0 µg/L
8	2,4-D	ND	1.0 µg/L
9	Pentachlorophenol	ND	1.0 µg/L
10	2,4,5-TP (Silvex)	ND	1.0 µg/L
11	2,4,5-T	ND	1.0 µg/L
12	2,4-DB	ND	10 µg/L
13	Dinoseb	ND	5.0 µg/L
14	Bentazon	ND	5.0 µg/L
15	DCPA (Dachtal)	ND	5.0 µg/L
16	Pichloram	ND	1.0 µg/L
17	Aclfluorfen	ND	5.0 µg/L

ND = Not Detected

Organochlorine Pesticides
EPA Method 608/SW8081A

	Compound	Concentration	Reporting Limit
1	alpha-BHC	ND	0.050 µg/L
2	gamma-BHC (Lindane)	ND	0.050 µg/L
3	Heptachlor	ND	0.050 µg/L
4	Aldrin	ND	0.050 µg/L
5	beta-BHC	ND	0.050 µg/L
6	delta-BHC	ND	0.050 µg/L
7	Heptachlor epoxide	ND	0.050 µg/L
8	Endosulfan I	ND	0.050 µg/L
9	Chlordane (Technical)	ND	1.0 µg/L
10	4,4'-DDE	ND	0.10 µg/L
11	Dieldrin	ND	0.10 µg/L
12	Endrin	ND	0.10 µg/L
13	4,4'-DDD	ND	0.10 µg/L
14	Endosulfan II	ND	0.10 µg/L
15	4,4'-DDT	ND	0.10 µg/L
16	Endrin aldehyde	ND	0.20 µg/L
17	Methoxychlor	ND	0.50 µg/L
18	Endosulfan sulfate	ND	0.10 µg/L
19	Endrin ketone	ND	0.20 µg/L
20	Toxaphene	ND	5.0 µg/L

ND = Not Detected